

UCI University of California, Irvine

Emergency Management Plan

Plan Shelter in Place	Revision No. 3.0
Number:	Effective Date: 08/01/04

Section 1.0 - Purpose

- 1.1 This Plan describes the general procedures to be followed when Shelter in Place is required in response to a major campus emergency. Shelter in place is the action of seeking immediate shelter indoors following a release of hazardous materials to the outside air. The hazardous materials may be chemical, biological, byproducts of a fire (smoke, ash, etc.), or other harmful contaminant.

Section 2.0 - Applicability/Scope

- 2.1 This plan applies to *all UCI owned and operated entities as defined in the Emergency Management Plan.*
- 2.2 This plan will be implemented based on the decision of the On-Scene Incident Commander and will provide guidance to the Zone Captains, Building Coordinators, Floor Wardens, Campus Police, Environmental, Health and Safety Department and Facilities Management.

Section 3.0 – References

- ☐ UCI Policy#903-40 “Emergency Management” (www.policies.uci.edu)
- ☐ UCI Emergency Management Plan
- ☐ Zone Handbooks
- ☐ Protecting Buildings From a Biological or Chemical Attack: actions to take before or during a release. LBNL/PUB-51959 January 10, 2003 (<http://securebuildings.lbl.gov/printer.html>)
- ☐ List of Buildings with Remote Shutdown and Reactivation Capability

Section 4.0 – Authority/Responsibilities

	Signature	Title	Date
Originator			
Approved by			

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UCI Director EH&S

Responsible for developing and maintaining the Shelter in Place Plan

Section 5.0 – Basic Procedures

5.1 Activation – As part of the assessment following a hazardous material release or other major campus emergency, the on-scene incident commander will determine the need to implement shelter in place procedures. The directive to shelter in place will be given to Zone Captains. Zone Captains will, in turn, notify Building Coordinators and Floor Wardens.

The on-scene incident commander can also utilize the UCI auto-dialer system to notify all Zone Captains, Building Coordinators and Floor Wardens of the need to implement the Shelter in Place Plan. If appropriate, Zone Captains, Building Coordinators and Floor Wardens can also be asked to read messages on the EH&S Emergency Management website in the Zone Captain, Building Coordinator, Floor Warden emergency information box.

5.2 Steps to Shelter in Place

- 5.2.1 Close all doors and windows
- 5.2.2 If possible, close or seal air vents
- 5.2.3 Close window shades, blinds or curtains
- 5.2.4 If possible, seal gaps around doors and windows with wet towels and tape
- 5.2.5 Turn off air handling (HVAC) equipment or set to 'Recirculation' to minimize introduction of outside air into building
- 5.2.6 Shut down all experiments/operations
- 5.2.7 Post sign at all entrances and exits, "Shelter in Place in effect. No Entry or Exit"
- 5.2.8 Move all occupants to an interior room away from as many windows as possible.
- 5.2.9 Remain indoors until 'all clear' message is received from incident commander or designee.
- 5.2.10 Following 'all clear' announcement, open doors and windows and turn on ventilation systems until indoor air has been exchanged with fresh air.

5.3 Providing Assistance to Persons with Disabilities

- 5.3.1 When possible, Floor Wardens should identify persons with disabilities in advance of an emergency situation.
- 5.4.1 Designate a person in the same or adjacent area to provide assistance as requested or required by the individual.
- 5.5.1 Assure the safe movement of all persons with disabilities and account for them as soon as possible.

5.4 Roles and Responsibilities:

- 5.4.1 On-scene Incident Commander
 - 5.4.1.1 Following site assessment has authority to order shelter in place for affected buildings.

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- 5.4.1.2 Will communicate order to Zone Captains. Positive contact must be made. If Zone Captain is unavailable, communicate directly with Building Coordinators and Floor Wardens.
- 5.4.1.3 Will communicate with Facilities Management to shut off HVAC systems
- 5.4.1.4 Will communicate 'All Clear' when conditions are safe to do so
- 5.4.2 Zone Captains
 - 5.4.2.1 Implement Shelter in Place procedure following Incident Commander order.
 - 5.4.2.2 Work with Building Coordinators and Floor Wardens to pre-designate interior safe areas
 - 5.4.2.3 Provide notification and status updates to Incident Commander or Zone Coordinator (if EOC activated)
- 5.4.3 Building Coordinators
 - 5.4.3.1 Implement Shelter in Place procedure following notification from Zone Captain
 - 5.4.3.2 Work with Zone Captains and Floor Wardens to pre-designate interior safe areas
 - 5.4.3.3 Provide notification and status updates to Zone Captains
- 5.4.4 Floor Wardens
 - 5.4.4.1 Implement Shelter in Place procedure following notification from Building Coordinator
 - 5.4.4.1.1 Assure all occupants are kept away from windows
 - 5.4.4.1.2 Post signage at all entrances and exits
 - 5.4.4.1.3 Keep calm, keep occupants informed regarding reason for shelter in place and possible duration
 - 5.4.4.2 Work with Zone Captains and Building Coordinators to pre-designate interior safe areas
 - 5.4.4.3 Provide notification and status updates to Building Coordinators
 - 5.4.4.4 Restore building to normal function following 'all clear'
 - 5.4.4.5 Inventory and replace any items used during the event
- 5.4.5 Facilities Management
 - 5.4.5.1 Provide control of HVAC, either remotely or on-site, as required
- 5.4.6 UCI Police Department
 - 5.4.6.1 Assist with area isolation and control of building entrances and exits

Section 6.0 – Procedures for Deactivation/Activation of HVAC Systems

- 6.1 The Incident Commander, with the support of the Safety Officer and Biosafety Officer as appropriate, will determine if HVAC systems and other utilities will need to be deactivated. Refer to guidance document: Protecting Buildings From a Biological or Chemical Attack: actions to take before or during a release. LBNL/PUB-51959 January 10, 2003
- 6.2 To remotely shutdown HVAC systems, the IC will contact the Facilities Management Service Desk at 949-824-5444 during normal business hours to instruct the primary facilities contact to deactivate specific HVAC systems. After hours, weekends, and holidays, the Facilities Management Service Desk phone forwards to Central Plant who will contact the primary facilities contact.

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- 6.3 The Primary Facilities Contact will coordinate utilities shutdown. The primary facilities contacts are: Paul Howland, Jim Hay, or Paige Macias.
- 6.4 The IC will provide the following information to facilities:
 - ❑ Affected buildings,
 - ❑ Affected utilities
 - ❑ Reason for shutdown
 - ❑ Anticipated extent of impact of shutdown
- 6.5 The Manager of Central Plant is responsible for implementation of the shutdown procedures and is the point of contact for reactivation. Only Facilities Management Central Plant Manager is authorized to restart the HVAC system after an emergency shutdown,
- 6.6 Facilities Management will maintain a list of buildings that have HVAC systems that can be shutdown or reactivated remotely via modem connection ([list attached](#)). For buildings that do not have remote shutdown/reactivation capability, the IC, with the support of the Safety and Biosafety Officers as necessary, will determine if manual shutdown of the building is appropriate.
- 6.7 Facilities Management will develop building specific shutdown procedures for priority buildings identified as high risk or critical. This includes BSL 3 laboratories, physical sciences buildings, Administration, etc.

Section 7.0– Laboratory Shutdown Procedures

- 7.1. The Incident Commander, with the support of the Safety Officer, will determine if laboratory shutdown procedures need to be implemented.
- 7.2. The Lab Manager and/or Principal Investigator is responsible for insuring the following:
 - 7.2.1. Check all temperature, pressure, air sensitive materials and equipment. This includes glove boxes, distillations and all reactions in progress. Terminate all experiments in progress, if safe to do so.
 - 7.2.2. Lower fume hood sashes all the way down. No work is allowed in fume hoods.
 - 7.2.3. All non-essential electrical devices should be turned off. Leave on explosion proof refrigerators and freezers.
 - 7.2.4. Ensure all chemical bottles and containers are capped off or sealed. Check disconnects of all lasers, rf generators, etc.
 - 7.2.5. Turn off all gas cylinders at the tank valve. If a flow of inert gas is being used to blanket reactive compounds, leave the gas on. Follow any Standard Operating Procedures that have been developed to address these hazardous operations.
 - 7.2.6. Check all cryogenic vacuum pumps. The evaporation of trapped materials may cause dangerous conditions if the vacuum pumped is unplugged. Check all containers of cryogenic materials to ensure they are all vented properly.

Section 8.0 - Advanced Notice to Shelter in Place

- 8.1 If an incident occurs off-campus, and there is sufficient time (at least 30 minutes) to mobilize large groups of people, direction may be given to gather in buildings that have been identified as providing an extra measure of protection. The criteria for identifying these buildings included but was not limited to: at least one building per Evacuation Zone, and capable of remotely manipulating the HVAC system to minimize exposures.
- 8.2 The buildings identified on campus are:
 - 8.2.1 Zone 1 – Administration Building 111

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- 8.2.2 Zone 2 – Social Science Tower 201
Berkeley Place 4
Public Services Building 7
Graduate School of Management 221
- 8.2.3 Zone 3 – Engineering Gateway 321
Engineering Tower 303
Information & Computer Sciences 302
- 8.2.4 Zone 4 – Reines Hall 401
- 8.2.5 Zone 5 – Natural Sciences I, 517
- 8.2.6 Zone 6 – Krieger Hall 600
- 8.2.7 Zone 7 – Claire Trevor Dance Studio/Theatre 711
- 8.2.8 Zone 8 – EH&S Facility 41
Irvine Hall 835
- 8.2.9 Zone 9 – Bren Events Center 901
- 8.2.10 Zone 10 – Interim Office Building 92
- 8.2.11 Zone 11 – To be determined
- 8.2.12 Zone 12 – To be determined
- 8.3 Notification and direction to move to one of the shelter in place locations listed above will be provided to the Zone Captains in the same manner as Section 5.1 shown above.

Section 9.0 - Additional Information

- 9.1 The typical duration for a shelter in place activity does not exceed several hours. The 'all clear' notice will be given as soon as possible.
- 9.2 Students, faculty and staff cannot be forced to shelter in place. If individuals are adamant about leaving the building and risking exposure to contaminants, record their name, time of leaving and destination.
- 9.3 All Zone and Building Emergency/Evacuation plans should be modified to include Shelter in Place procedures.

Section 10.0 – Definitions

- 10.1 Interior Safe Area – an area of assembly for building occupants. Features of an interior safe area may include:
 - 10.1.1 Above the ground floor
 - 10.1.2 Minimal windows and vents
 - 10.1.3 Adequate space for anticipated occupancy. Allow approximately 10 square feet per person
 - 10.1.4 Consider hallways, conference/meeting rooms, break areas or restrooms
 - 10.1.5 Consider having hard wired phone service available in case radios or cell phone systems are compromised during the emergency
- 10.2 Shelter in Place – The action of seeking immediate shelter indoors following a release of hazardous materials to the outside air. The hazardous materials may be chemical, biological, byproducts of a fire (smoke, ash, etc.), or other harmful contaminant.

Section 11.0 - Resources

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- 11.1 Equipment
 - 11.1.1 Signage

Shelter in Place in Effect No Entry or Exit
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- 11.1.2 Cell Phones/Radios

- 11.2 Personnel
 - 11.2.1 Incident Commander
 - 11.2.2 UCI Police Department
 - 11.2.3 Zone Coordinators
 - 11.2.4 Building Captains
 - 11.2.5 Floor Wardens
 - 11.2.6 Facilities Maintenance Staff

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